

October 24, 2007

Mr. Christopher M. Crane
President and CEO
AmerGen Energy Company, LLC
200 AmerGen Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: THREE MILE ISLAND STATION, UNIT 1 - NRC INTEGRATED INSPECTION
REPORT 05000289/2007004

Dear Mr. Crane:

On September 30, 2007, the U. S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Three Mile Island, Unit 1 (TMI) facility. The enclosed inspection report documents the inspection results, which were discussed October 17, 2007, with Mr. Rusty West and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

On the basis of the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice", a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

We appreciate your cooperation. Please contact me at 610-337-5200 if you have any questions regarding this letter.

Sincerely,

/RA/

Ronald R. Bellamy, Ph.D., Chief
Reactor Projects Branch 7
Division of Reactor Projects

Docket No: 50-289
License No: DPR-50

Enclosure: Inspection Report 05000289/2007004
w/Attachment: Supplemental Information

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Site Vice President - TMI Unit 1, AmerGen
Plant Manager - TMI, Unit 1, AmerGen
Regulatory Assurance Manager - TMI, Unit 1, AmerGen
Senior Vice President - Nuclear Services, AmerGen
Vice President - Mid-Atlantic Operations, AmerGen
Vice President - Operations Support, AmerGen
Vice President - Licensing and Regulatory Affairs, AmerGen
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Chairman, Board of Supervisors of Londonderry Township
R. Janati, Director, Bureau of Radiation Protection, State of PA
J. Johnsrud, National Energy Committee
E. Epstein, TMI-Alert (TMIA)
D. Allard, PADEP

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- Chairman, Board of County Commissioners of Dauphin County
- Chairman, Board of Supervisors of Londonderry Township
- R. Janati, Director, Bureau of Radiation Protection, State of PA
- J. Johnsrud, National Energy Committee
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U.S. NUCLEAR REGULATORY COMMISSION
REGION 1

Docket No: 05000289

License No: DPR-50

Report No: 050000289/2007004

Licensee: AmerGen Energy Company, LLC (AmerGen)

Facility: Three Mile Island Station, Unit 1

Location: PO Box 480
Middletown, PA 17057

Dates: July 1 - September 30, 2007

Inspectors: David M. Kern, Senior Resident Inspector
Javier M. Brand, Resident Inspector
G. Scott Barber, Senior Project Engineer
Ronald M. Nimitz, Senior Health Physicist
David L. Werkheiser, Senior Resident Inspector, Beaver Valley
Andrew A. Rosebrook, Project Engineer
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Approved by: Ronald R. Bellamy, Ph.D., Chief
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SUMMARY OF FINDINGS

IR 05000289/2007004; 07/01/2007 - 09/30/2007; AmerGen Energy Company, LLC; Three Mile Island, Unit 1; Routine Integrated Report.

The report covered a 13-week period of inspection by resident inspectors and announced inspections by regional inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified

B. Licensee Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Three Mile Island, Unit 1 (TMI) operated at or near 100 percent rated thermal power for the entire inspection period.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

Partial System Walkdowns (71111.04Q - 3 samples)

The inspectors performed three partial system walkdown samples on the following systems and components:

- On August 8, 2007, the 'B' emergency diesel generator (EDG) and its associated engineered safeguards electrical distribution system while the 'A' EDG was unavailable due to scheduled maintenance.
- On August 24, the inspectors reviewed the 'A' train of the accessible portions of the building spray system, while the 'B' train of the building spray system was inoperable due to planned surveillance testing.
- On August 30-31, the 'A' and 'B' motor driven emergency feedwater (EFW) pumps and injection headers, while the turbine driven EFW pump and portions of the EFW injection header were unavailable due to planned maintenance.

The partial system walkdowns were conducted on the redundant and standby equipment to ensure that trains and equipment relied on to remain operable for accident mitigation were properly aligned. Documents reviewed during the inspection are listed in the Attachment.

Complete System Walkdown (71111.04S - 1 sample)

On September 14 thru 21, the inspectors performed one complete system walkdown sample on the 'B' decay heat removal, 'B' decay closed cooling water, and 'B' river water system train after completion of scheduled maintenance. The complete system walkdown was conducted to verify proper system train lineup and to verify that system components were correctly positioned and in generally good condition to perform their safety function. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

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1R05 Fire Protection (71111.05Q - 10 samples)a. Inspection Scope

The inspectors conducted fire protection inspections for several plant fire zones, selected based on the presence of equipment important to safety within their boundaries. The inspectors conducted plant walkdowns, verified the areas were as described in the TMI Fire Hazard Analysis Report, and that fire protection features were being properly controlled per surveillance procedure 1038, Administrative Controls-Fire Protection Program, Rev. 69. The plant walkdowns were conducted throughout the inspection period and included assessment of transient combustible material control, fire detection and suppression equipment operability, and compensatory measures established for degraded fire protection equipment in accordance with procedure OP-MA-201-007, Fire Protection System Impairment Control, Rev. 5. In addition, the inspectors verified that applicable clearances between fire doors and floors met the criteria of Attachment 1 of Engineering Technical Evaluation CC-AA-309-101, Engineering Technical Evaluations, Rev. 9. Additional documents reviewed during this inspection are listed in the Attachment. Fire zones and areas inspected included:

- Fire Zone CB-FA-3a, Control Building Elevation 338', 1D Switch Gear Room;
- Fire Zone CB-FA-3b, Control Building Elevation 338', 1E Switch Gear Room;
- Fire Zone CB-FA-3c, Control Building Elevation 338'6", ESAS Room;
- Fire Zone DG-FA-2, Diesel Generator Building Elevation 305', Diesel Generator B;
- Fire Zone IB-FZ-1, Intermediate Building Elevation 295', Valve Gallery & Penetration Room;
- Fire Zone ISPH-FZ-1, Intake Screen Pump House Elevation 308', 1R SWGR & Pump Area and associated Trash Rake and Screen Area;
- Fire Zone ISPH-FZ-2, Intake Screen Pump House Elevation 308', 1T SWGR & Pump Rm and associated Trash Rake and Screen Area;
- Fire Zone TB-FA-1, Unit 1 Turbine Building Elevation 355', Deluge Systems;
- On July 11, the inspectors reviewed Issue Report (IR) 649263 which evaluated a continuous fire watch for a fire service water system outage.
- On July 19, the inspectors reviewed IR 652842 which evaluated transient combustible materials staged in the intermediate building at the EFW pump room.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07).1 Annual Heat Sink Performance Inspection (71111.07 A - 2 samples)a. Inspection Scope

Based on plant specific risk importance, the inspectors selected the 'B' nuclear closed cooling heat exchanger (NS-C-1B) and the 'B' decay heat removal system heat exchanger (DH-C-1B) as samples for inspection. The inspectors evaluated the heat removal capability and verified that any potential heat exchanger deficiencies which could mask degraded performance were identified. The inspectors reviewed engineering change request (ECR) TM 03-00794 Attachment B, T1R15 DH-C-1B Performance Evaluation, Rev. 0 and recurring task work order (WO) R2027524, NS-C-1B, PM/Heat Exchanger Inspection & Clean. The inspectors reviewed the operations data and verified that the performance monitoring was conducted using methods outlined in Electric Power Research Institute (EPRI) NP-7552, Performance Monitoring Guidelines, that pre-established criteria were appropriate, and that the heat exchanger performance met the pre-established criteria including heat exchanger inlet and outlet temperatures and secondary side fluid flow. Additional documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Biennial Baseline Heat Sink Performance Inspection (71111.07B - 3 samples)a. Inspection Scope

The inspectors performed three inspection samples. Based on plant specific risk importance and resident inspector input, the inspectors selected the 'C' and 'D' nuclear service closed cooling water heat exchangers and 'B' decay heat closed cooling water heat exchanger as samples for inspection.

The inspectors reviewed the performance testing and inspection and cleaning methods to ensure heat removal capabilities were consistent with commitments in response to NRC Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment and accepted industry practices. The inspectors determined that acceptance criteria were consistent with design basis values. Also, the inspectors reviewed methods for monitoring and controlling biotic and macro-fouling to verify that they were implemented effectively.

The inspectors completed walk downs of the selected components and the associated service water intake structure to assess the general material condition of the selected heat exchangers and associated service water components. The inspectors reviewed a sample of IRs related to the selected heat exchangers to ensure that problems related

to these components were appropriately identified, characterized, and corrected. Additional documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q - 2 samples)

a. Inspection Scope

On August 7, 2007, the inspectors observed licensed operator requalification training at the control room simulator for the 'D' operator crew. The inspectors observed the operators' simulator drill performance and compared it to the criteria listed in TMI Operational Simulator Scenario Number TQ-TM-106-LRU-S003, Fire in 'A' Battery Room, Loss of 'A' DC, Concurrent with Escalating OTSG tube leak, and Subsequent Loss of Subcooling Margin, Rev. 1. On September 18, 2007, the inspectors observed licensed operator requalification training at the control room simulator for the 'C' operator crew. The inspectors compared crew drill performance to the criteria listed in TMI Operational Simulator Scenario Number TQ-LRU-106-S004, Reactor Coolant Pump High Vibration and Sheared Shaft and RCS Leak, Rev. 1.

The inspectors reviewed the operators' ability to correctly evaluate the simulator training scenario and implement the emergency plan. The inspectors observed supervisory oversight, command and control, communication practices, and crew assignments to ensure they were consistent with normal control room activities. The inspectors observed operator response during the simulator drill transients. The inspectors evaluated training instructor effectiveness in recognizing and correcting individual and operating crew errors. The inspectors attended the post-drill critiques in order to evaluate the effectiveness of problem identification. The inspectors verified that emergency plan classification and notification training opportunities were tracked and evaluated for success in accordance with criteria established in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 5.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q - 2 samples)

a. Inspection Scope

The inspectors evaluated Maintenance Rule (MR) implementation for MR scoping, characterization of failed safety-related structures, systems, and components (SSCs), MR risk categorization of SSCs, SSC performance criteria or goals, and appropriateness of corrective actions. Additionally, extent of condition follow-up,

operability, and functional failure determinations were reviewed to verify they were appropriate. The inspectors verified that the issues were addressed as required by 10 CFR 50.65, Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, NUMARC 93-01, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, Rev. 2, and AmerGen procedure ER-AA-310, Implementation of the Maintenance Rule, Rev. 6. The inspectors verified that appropriate corrective actions were initiated and documented in IRs, and that engineers properly categorized failures as maintenance rule functional failures and maintenance preventable functional failures when applicable. Additional documents reviewed during this inspection are listed in the Attachment.

- IR 648297 describes the 1E inverter synchronizing board relay RL1 failure. AmerGen did not properly identify the failure as a maintenance rule functional failure (MRFF). The inspectors determined this was a MRFF as the relay failure did result in inoperability of vital buses A and C. However, this would not have resulted in a maintenance preventable functional failure, since preventative maintenance (PM) had been developed and in place to replace the relay boards. The PM was not overdue and had not yet been completed for the 1E inverter. As such, the 10 CFR 50.65 a(2) determination remained valid for the system and no violation of the maintenance rule occurred.
- IR 651050 described a plant process computer (PPC) failure resulting in the integrated control system (ICS) unit load demand unexpectedly shifting to manual operation.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - 5 samples)

a. Inspection Scope

The inspectors reviewed the scheduling, control, and restoration during the following maintenance activities to evaluate the effect on plant risk. This review was against criteria contained in AmerGen Administrative Procedure 1082.1, TMI Risk Management Program, Rev. 6 and WC-AA-101, On-Line Work Control Process, Rev. 13. Additional documents reviewed during this inspection are listed in the Attachment.

- On July 11, 2007, the FS-P-1 fire service pump was removed from service for scheduled maintenance activities. The condition elevated the online maintenance risk profile to yellow (Risk Document 516, Rev. 8).
- On August 16, 2007, the PPC was deenergized to support troubleshooting of a suspected electrical anomaly. This condition required operators to place a portion of the ICS in manual operation, conduct enhanced monitoring of selected plant indications which were no longer available from the PPC, and manually

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perform certain periodic calculations of reactor core performance characteristics as required by technical specifications (Risk Document 1095, Rev. 8).

- On August 30 and again on August 31, the turbine driven emergency feedwater pump (EF-P-1) was isolated to support installation of a high point vent valve on the emergency feedwater (EFW) suction line in accordance with engineering change request 06-00332 EF-V-66 Vent. The condition elevated the online maintenance risk profile to yellow (Risk Document 1248, Rev. 1).
- On September 5, the 'A' reactor river water system train was removed from service for scheduled maintenance activities. The condition elevated the online maintenance risk profile to yellow (Risk Document 527, Rev. 9).
- On September 11, the 'B' decay heat, decay closed, and decay river trains were isolated to support replacement of the 'B' decay closed pump motor (DC-P-1B), and other scheduled maintenance activities. The condition elevated the online maintenance risk profile to orange (Risk Document 831, Rev. 19).

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - 3 samples)

a. Inspection Scope

The inspectors verified that degraded conditions in question were properly characterized, operability of the affected systems was properly evaluated in relation to Technical Specification (TS) requirements, applicable extent of condition reviews were performed, and no unrecognized increase in plant risk resulted from the equipment issues. The inspectors referenced NRC Inspection Manual Chapter (IMC) Part 9900, Operable/Operability-Ensuring the Functional Capability of a System Component and AmerGen procedure OP-AA-108-115, Operability Determinations, Rev. 3, to determine acceptability of the operability evaluations. The inspectors reviewed operability evaluations for the following degraded equipment issues:

- On April 19, 2007, operators observed high maximum fuel rail pressure on the diesel driven fire service pump FS-P-3. Engineers determined that this condition had shown an increasing trend over the past 18 months, but fuel flow to the engine remained sufficient. Therefore, the pump remained operable (IR 648759 and Work Request A2171753).
- On July 18, during inspections of fuel assemblies in the spent fuel pool to investigate excessive longitudinal growth, two fuel assemblies demonstrated excessive control rod drag force when a dummy control rod assembly (CRA) was inserted (IR 651242). This observation had the potential to invalidate the existing operability evaluation OPE-07-003, Mark B12 Fuel Assembly Elongation,

Rev. 1. Additional CRA drag testing with actual CRAs was performed with normal results, indicating that elongation had not caused plastic deformation of the fuel assemblies. The licensee determined the test methodology gave inaccurate results on July 18 and OPE-07-003 remained valid.

- On September 3, operators identified air leaking from the air actuator for reactor building emergency cooling outlet valve RR-V-6 (IR 667445). The air leak degraded to 100 standard cubic feet per hour over the next week. Increased air usage adversely affected the 2-hour backup instrument air system and could potentially affect operability of the EFW injection valves. Operators determined the EFW injection trains remained operable, developed an adverse condition monitoring plan RR-V-6 Positioner Air Leak, Rev. 0, and expedited repairs.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - 7 samples)

a. Inspection Scope

The inspectors reviewed and/or observed the following post-maintenance test (PMT) activities to ensure: (1) the PMT was appropriate for the scope of the maintenance work completed; (2) the acceptance criteria were clear and demonstrated operability of the component; and (3) the PMT was performed in accordance with procedures. Additional documents reviewed during this inspection are listed in the Attachment.

- On August 1, 2007, electricians performed 1301-4.6.2, Station Battery 1B Weekly, Rev. 9 and 1301-5.8.2, Station Battery 1B Quarterly, Rev. 7 following corrective maintenance to address low specific gravity for cell #3.
- On August 8, operators performed 1303.4.16, 'A' EDG Monthly Inservice Testing (IST), Rev. 114 following a maintenance outage on the 'A' EDG.
- On August 18-19, electricians performed portions of 1104-19, Control Building Ventilation System, Rev. 71 following troubleshooting and corrective maintenance (work order 2174154) to replace two solenoid valves suspected of causing delayed operation of two control building emergency ventilation dampers.
- On August 24, operators performed testing in accordance with 1303.5.2B, 'B' Emergency Loading Sequence And HPI Logic Channel/Component Test, Rev. 3, following replacement of a failed contact in engineering safeguards relay 63Z2/LDB.
- On September 6, operators performed testing in accordance with 1300-3KA, IST of RR Pump 'A' and Valves, Rev. 2, following a scheduled reactor river system

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outage for miscellaneous maintenance activities, including replacement of a solenoid valve for RR-V-10A, oil change, and pump relay maintenance.

- On September 12, operators performed testing in accordance with OP-TM-543-202, IST of DC-P-1B, Rev. 2, following replacement of the motor for the 'B' decay closed cooling water pump.
- On September 27, operators performed testing in accordance with 1303-5.2A, A train Emergency Loading Sequence And HPI Logic Channel / Component Test, Rev. 3, following corrective maintenance replacement of Engineered Safeguards and Actuation System (ESAS) relay 63Z-1B/R-C2A.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (5 Routine Surveillance and 2 In Service Test Samples)

The inspectors observed and/or reviewed the following operational surveillance tests to verify adequacy of the test to demonstrate the operability of the required system or component safety function. Inspection activities included review of previous surveillance history to identify previous problems and trends, observation of pre-evolution briefings, and initiation/resolution of related IRs for selected surveillances.

- On July 5, 2007, procedure 1303-4.16, Emergency Power System, Rev. 114.
- On July 10, procedure 1303-11.36, HSPS - Reactor Building Pressure Channel Test, Rev. 21.
- On August 17, procedure OP-TM-211-208, IST OF MU-P-1C, Rev. 2.
- On August 21, procedure 1303-5.1A, 'A' RB Emergency Cooling and Isolation System Logic Channel/Component Test, Rev. 3.
- On August 27, procedure 1303-4.1C, Reactor Protection System Channel 'C' Test, Rev. 14.
- On August 29, procedure 1303-3.KC, IST of RR Cooling Valves, Rev. 0.
- On September 23, procedure OP-TM-622-201, Control Rod Movement, Rev. 2.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23 - 1 sample)a. Inspection Scope

The inspectors reviewed the following temporary modification (TM) and associated implementing documents, interviewed the respective system engineer, and walked down the in-plant system to verify the plant design basis and that system or component operability was maintained. Procedures CC-AA-112, Temporary Configuration Changes, Rev. 12, and CC-TM-112-1001, Temporary Configuration Change Implementation, Rev. 4, specified requirements for development and installation of TMs.

- Engineering change request 07-00461, NR-SR Cross-Connection Code Repair, Rev. 1 was performed on July 11, 2007, to address a degrading through-wall leak caused by microbiologically induced corrosion (MIC). The leakage had been previously identified and trended as documented in IRs 608589, 613770, 611631, and 610963.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY**Cornerstone: Occupational Radiation Safety**20S1 Access Controls (71121.01 - 4 samples)a. Inspection Scope

The inspectors reviewed selected activities and associated documentation in the below listed areas. The evaluation of AmerGen's performance in these areas was against criteria contained in 10 CFR 20, applicable TSs, and applicable AmerGen procedures.

Plant Walkdowns, Radiation Work Permit Reviews, and Jobs in Progress Reviews

The inspectors toured the facility and reviewed radiological controlled area access controls, posting, barricading, and High Radiation Area access controls. The inspectors verified selected locked High Radiation Areas were closed and verified locked status. The inspectors made independent radiation survey measurements during the tours to evaluate applicable controls including radiological postings.

The inspectors selectively evaluated personnel monitoring practices and evaluated external and internal dose assessments. The inspectors selectively evaluated personnel radiation exposure results since the previous inspection. The inspectors selectively reviewed radiological controls for on-going diving operations.

Problem Identification and Resolution

The inspectors selectively reviewed self-assessments and IRs to determine if identified problems were entered into the corrective action program for resolution. The review included potential radiation worker or radiation protection personnel errors to determine if there was an observable pattern traceable to a similar cause. (Section 4OA2)

High Risk Significant, High Dose Rate High Radiation Area (HRA) and Very High Radiation Area (VHRA) Controls

The inspectors discussed changes for HRA access controls since the last inspection with the Radiation Protection Manager and selected supervisors to determine if there were changes and if the changes resulted in a reduction in the effectiveness and level of worker protection.

Radiation Worker/Radiation Protection Technician Performance and Radiation Protection Technician Proficiency

The inspectors reviewed issue reports since the last inspection to identify problems with worker or radiation protection technician performance.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02 - 3 samples)

a. Inspection Scope

The inspectors conducted the following activities to determine if AmerGen was properly implementing operational, engineering, and administrative controls to maintain personnel occupational radiation exposure as low as is reasonably achievable (ALARA). Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and applicable AmerGen procedures. The inspectors selectively reviewed Station ALARA Committee Meeting Minutes and presentations since the previous inspection.

Verification of Dose Estimates and Exposure Tracking

The inspectors reviewed 2006 station aggregate dose estimates relative to applicable goals. The inspectors selectively compared the results achieved (person-rem sustained) with the intended dose goals. The inspectors evaluated differences between initial radiation dose estimates and actual doses sustained for work activities to identify causes for differences in results achieved. The inspectors reviewed 2007 dose goals and planned major work activities. The inspectors reviewed long-term dose reduction

initiatives. The inspectors selectively reviewed AmerGen's proposed TMI 5 year exposure reduction plan.

Source-Term Reduction and Control

The inspectors selectively reviewed and discussed AmerGen's source term reduction strategy designed to minimize the source term external to the core and results achieved. The inspectors discussed source term reduction initiatives outlined in the proposed 5 year exposure reduction plan.

Problem Identification and Resolution

The inspectors reviewed issue reports in this area since the last inspection to determine if AmerGen was including ALARA deficiencies and issues in its corrective action program. (See Section 4OA2)

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03 - 3 samples)

a. Inspection Scope

The inspectors reviewed selected activities and associated documentation in the below listed areas. The evaluation of AmerGen's performance in these areas was against criteria contained in 10 CFR 20, applicable TSs, and applicable station procedures.

Self-Contained Breathing Apparatus

The inspectors reviewed the functional testing and inspection of self-contained breathing apparatus (SCBA) to ensure the equipment was being properly maintained and inspected in accordance with the manufacturer's recommendations and applicable regulatory requirements. The inspectors reviewed periodic testing of the SCBA units' components (i.e., hydro testing of tank, maintenance and testing of regulators, low pressure alarms). The inspectors reviewed 5 year maintenance records for three SCBAs. The inspectors reviewed training records for personnel authorized to use SCBAs, including shift personnel, and also reviewed training and qualification of personnel authorized to service SCBA vital components. The inspectors reviewed and compared procedures for maintenance and use of SCBAs relative to manufacturer's recommendations.

Verification of Instrument Calibration, Operability, and Alarm Setpoint Verification

The inspectors selectively reviewed calibration and operability check records of selected instrumentation used for work activities (diving) and surveys of radioactive waste shipments (Ludlum 12159, 102763; E-140-1123; Telepole - 6696-045; SAC-4:394; E-530N - 674; AMP 100- 76557, 78646). The inspectors reviewed calibration of the High

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Range Containment Monitoring System (RMG-22,20) and reviewed calibration of the reactor coolant sample line area radiation monitor (RMG-18). The inspectors selectively reviewed calibration and checking of the whole body counter (stand-up) and reviewed calibration of both pocket ion chambers and electronic dosimetry worn by divers.

Problem Identification and Resolution

The inspectors reviewed issue reports in this area since the last inspection to determine if AmerGen was including instrument deficiencies and issues in its corrective action program (Section 4OA2). The review included self-assessments, audits, and corrective action reports.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation (71122.02 - 5 samples)

a. Inspection Scope

The inspectors reviewed AmerGen's radioactive waste processing, storage, and transportation programs, in the below listed areas, relative to applicable criteria specified therein. Additional documents reviewed during this inspection are listed in the Attachment.

Inspection Planning/In-Office Inspection

The inspectors reviewed the solid waste system description in the Updated Final Safety Analysis Report (UFSAR) and recent radiological effluent release reports for information on the types and amounts of radioactive waste. The inspectors reviewed AmerGen's audit program in this area. (See Section 4OA2)

System Walkdown

The inspectors walked down accessible portions of the station's radioactive liquid and solid waste collection, processing, and storage systems and locations to determine if systems and facilities were consistent with descriptions provided in the UFSAR, to evaluate their general material conditions, and to identify changes made to systems. Areas visually inspected included storage areas and plant facilities. Visual inspection records and previous surveys were also reviewed. The inspectors also discussed operation of the systems with cognizant licensee personnel. The inspectors reviewed the following matters:

- the status of any non-operational or abandoned radioactive waste process equipment and the adequacy of administrative and physical controls for those systems;
- changes made to radioactive waste processing systems and potential radiological impact including conduct of safety evaluations of the changes, as necessary;
- current processes for transferring radioactive waste resin and sludge to shipping containers and mixing and sampling of the waste, as appropriate;
- radioactive waste and material storage and handling practices;
- sources of radioactive waste at the station (waste streams), processing (as appropriate) and handling of the waste; and
- the general condition of facilities and equipment.

The review was against criteria contained in the station's UFSAR, 10 CFR Part 20, 10 CFR 61, the Process Control Program (PCP), and applicable station procedures.

Waste Characterization and Classification

The inspectors reviewed the following matters:

- radiochemical sample analysis results for radioactive waste streams;
- the development of scaling factors for difficult to detect and measure radionuclides;
- methods and practices to detect changes in waste streams;
- classification and characterization of waste relative to 10 CFR 61.55 and 10 CFR 61.56;
- implementation of applicable NRC Branch Technical Positions (BTPs) on waste classification, concentration averaging, waste stream determination, and sampling frequency;
- current waste streams and their processing relative to descriptions contained in the UFSAR and the station's approved PCP;
- current processes for transferring radioactive waste resin and sludge discharges into shipping/disposal containers to determine adequacy of sampling; and
- revisions of the PCP and the UFSAR to reflect changes (as appropriate).

The review was against criteria contained in 10 CFR 20, 10 CFR 61, 10 CFR 71, the UFSAR, the PCP, applicable NRC BTPs, and licensee procedures.

Shipment Preparation

The inspectors selectively reviewed the training and qualification program for personnel shipping radioactive materials. The inspectors confirmed proper training. The review was against criteria contained in NRC Bulletin 79-19 and 49 CFR 172 Subpart H.

Shipment Records and Documentation

The inspectors selected and reviewed the records associated with five non-excepted shipments of radioactive material made since the previous inspection in this area

(Shipment Nos. RS-07-101, RS-07-055, RS-07-102, RS-07-103, RS-07-057). The following aspects of the radioactive waste, radioactive material packaging, and radioactive material shipping activities were reviewed:

- implementation of applicable shipping requirements including completion of waste manifests;
- implementation of the specifications in applicable Certificates of Compliance, as appropriate, for the approved shipping casks including limits on package contents;
- classification and characterization of waste relative to 10 CFR 61.55 and 61.56, as appropriate
- implementation of recent NRC and Department of Transportation (DOT) shipping requirements rule changes;
- implementation of 10 CFR 20 Appendix G;
- implementation of specific radioactive material shipping requirements;
- packaging of shipments;
- labeling of shipping containers;
- placarding of transport vehicles;
- conduct of vehicle checks;
- provision of driver emergency instructions;
- completion of shipping paper/disposal manifest;
- evaluation of package against package performance standards, as appropriate;
- conformance with procedures for cask loading, closure and use requirements including consistency with cask vendor approved procedures;
- use of latest revision documents.

The review was against criteria contained in 10 CFR 20; 10 CFR 61; 10 CFR 71; applicable DOT requirements, as contained in 49 CFR 170-189 for the above areas; station procedures; applicable disposal facility licenses; and applicable Certificates of Compliance or vendor procedures for various shipping casks.

The inspectors also selectively reviewed the year 2006 Annual Radioactive Effluent Release Report, relative to types and quantities of radioactive waste shipped offsite and relative to changes to the PCP.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151- 1 sample)

a. Inspection Scope

On August 6, 2007, the inspectors reviewed all reactor trips during the previous 24 months to verify if they should be counted against the new PI-Unplanned Scrams with Complications, which went into effect the third quarter 2007.

Enclosure

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Review of Items Entered into the Corrective Action Program and Cross-References to Problem Identification And Resolution (PI&R) Issues Reviewed Elsewhere

a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by reviewing a list of daily IRs, by performing detailed reviews of selected IRs, attending daily screening meetings, and accessing the licensee's computerized database.

The inspectors also reviewed a sample of IRs associated with 10 CFR 50.59 issues and plant modification issues to ensure that AmerGen was appropriately identifying, characterizing, and correcting problems associated with these areas and that the planned or completed corrective actions were appropriate.

b. Findings

No findings of significance were identified.

.2 Radiological Environmental Monitoring Program

a. Inspection Scope (71121)

The inspectors reviewed problem reports to determine if identified problems were entered into the corrective action program for resolution. The inspectors selectively reviewed the reports to evaluate AmerGen's threshold for identifying, evaluating, and resolving problems (AR Nos. 665247, 665252, 664284, 664189, 663523, 664275, 665133, 664323, 659357, 6555960, 655539, 651844, 651593, 476838, 476842, 323733, 454625, 478472, 470902, 476842)

The following audits and assessments were reviewed:

- NOSA-TMI-06-04, Chemistry, Radwaste, Effluent and Environmental Monitoring Program, dated April 19, 2006
- Liquid Radwaste Program, Focused Assessment (AR454625)
- Occupational Safety, Access Control, ALARA, Focused Assessment (AR526380)

Enclosure

This review was against criteria contained in 10 CFR 20, Technical Specifications, and the station procedures.

b. Findings

No findings of significance were identified.

.3 Annual Sample: Review of The Operator Workaround and Adverse Condition Monitoring Programs

a. Inspection Scope (71152- 1 sample)

The inspectors reviewed the cumulative effects of the existing operator work-arounds (OWAs), the list of operator challenges, existing operator aids and disabled alarms, and the list of open main control room deficiencies to identify any effect on emergency operating procedure operator actions, and impact on possible initiating events and mitigating systems. The inspectors evaluated whether station personnel were identifying, assessing, and reviewing OWAs as specified in AmerGen administrative procedure OP-AA-102-103, Operator Work-Around Program, Rev. 1.

The inspectors also reviewed AmerGen's implementation of OP-AA-108-111, Adverse Condition Monitoring and Contingency Plans, Rev. 4 for degraded structures, systems, and components (SSCs). The listed adverse condition monitoring plans (ACMs) were assessed to understand the nature of the degradation, the additional monitoring in place to ensure the requisite level of functionality, and Amergen's plans to address the issues for the long term. The inspectors interviewed selected station personnel to assess their understanding of the open ACMs.

- Nuclear Services River Water (NR) and Secondary River (SR) Microbiologically Induced Corrosion (MIC) Leak dated 4/6/07
- SR Underground Pipe Leak dated 2/10/2006
- 2B Feedwater Heater Level Control dated 1/24/07
- Unexpected 'B' Core Flood Tank Leakage dated 8/3/06
- Fuel Leakage Monitoring Plan dated 9/29/06
- CO-T-1A De-Ice Line Flange Leak dated 4/20/07
- HD-V-29 Steam Leak Monitoring dated 5/8/07
- Erratic Flow in 'B' decay heat system dated 5/24/07

b. Findings

No findings of significance were identified.

AmerGen adequately implemented various aspects of OP-AA-102-103 and OP-AA-108-111. The inspectors noted that the ACMs had appropriate monitoring plans which included periodic inspections. Degradations that could be addressed by online repairs/replacements have been planned, while those needing specialized plant conditions have been planned for the October 2007 refueling outage. The inspectors noted that

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station management was well aware of these ACMs and had plans in place to resolve the underlying issues at the first opportunity.

4OA3 Event Followup (71153 -1 sample)

.1 Sulfuric Acid Leak

a. Inspection Scope

On July 14, 2007, operators discovered a 0.25 gallon per minute unisolable leak from the Above Ground Circulating Water Acid Tank (IR 650096). This tank contained 6,300 gallons of sulfuric acid. The tank is contained in a moat and inside a building. All leakage was contained in the moat and no release to the environment occurred. TMI entered abnormal operating procedure 1203-44, "Hazardous Release," Rev. 40 and took appropriate actions to contain and stop the leakage. Approximately 100 gallons of sulfuric acid leaked from the tank. Because this amount exceeded Federal reportable quantity limits and station personnel did not expect to be able to repair and clean up the leak within 24 hours, the licensee made a report to the Pennsylvania Department of Environmental Protection (PA DEP) as required by procedure. The inspectors reviewed the operators' actions during the event, reviewed the event for reportability under 10 CFR 50.72, and reviewed compliance with environmental and the Occupational Safety and Health Administration requirements.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On October 17, 2007, the resident inspectors presented the inspection results to Mr. Rusty West and other members of the TMI staff, who acknowledged the findings. The regional specialist inspection results were previously presented to members of AmerGen management. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary and none was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

D. Atherholt	Manager, BOY Systems
C. Baker	Manager, Chemistry
J. Bashista	Engineer, River Water Systems
P. Bennett	Manager, Design Engineering
B. Carsky	Director, Operations
T. Dougherty	Plant Manager
E. Eilola	Director, Site Engineering
R. Greene	GL 89-13 Programs Engineer
J. Heischman	Director, Maintenance
A. Miller	Regulatory Assurance
T. Nahay	Director, Work Management
D. Neff	Manager, Emergency Preparedness
L. Rajkowski	Manager Engineering Programs
C. Smith	Manager, Regulatory Assurance
L. Weir	Manager, Nuclear Oversight Services
C. Wend	Manager, Radiation Protection
R. West	Vice President, TMI Unit 1
T. Wickel	Senior Manager, Design Engineering
V. Zeppos	Engineer

Others:

M. Murphy	PADEP, Bureau of Radiation Protection
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LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Drawings:

- 302-011, Main Steam Flow Diagram, Rev. 68
- 302-082, Emergency Feedwater Flow Diagram, Rev. 23
- 302-101, Condensate Flow Diagram, Rev. 62
- 302-202, River Water System, Rev. 71
- 302-640, Decay Heat Removal Flow Diagram, Rev. 80
- 302-645, Decay Heat Closed Cycle Cooling Water, Rev. 38
- 302-712, Reactor Building Spray Flow Diagram, Rev. 48

Procedures:

- OP-TM-214-000, Building Spray System, Rev. 7
- OP-TM-424-000, Emergency Feedwater System, Rev. 6
- 1301-1, Shift And Daily Checks, Rev. 156

Other Documents:

- ECR 06-00332, EF-V-66 Vent
- WO C2012709
- IR 663707
- TMI On-Line Station Risk Evaluation Document, On-Line Risk # 535, Tag# 1303-5.2A&B, Rev. 10 Clearance
- TMI On-Line Station Risk Evaluation Document, On-Line Risk # 831, B Decay Heat Train, Rev. 17
- Clearance Tag# 07501238, for Decay Closed Cooling Pump 1B

Section 1R05: Fire Protection

Other Documents:

- Fire Hazards Analysis Report - Vol. 1, Update 18, Rev. 22
- Fire Pre-Plan Strategies, TMI Unit 1, dated January 31, 2007
- NRC Information Notice 2007-26, Combustibility of Epoxy Floor Coatings at Commercial Nuclear Power Plants.
- IR 663869
- AR 00661483

Section 1R07: Heat Sink Performance

Issue Reports

128727	264708	427645	651412	669983
139264	286168	452314	651651	670003
140209	287025	487813	651653	670025
141469	366945	537666	651654	672271
197692	371356	550932	665579	673592
206396	396876	623823	666045	

Procedures

CY-AA-110-000, Conduct of Chemistry, Rev. 5
CY-AA-120-400, Closed Cooling Water Chemistry, Rev. 9
CY-TM-120-8000, Chemistry Specifications, Rev. 0
1301-6.7, Monitoring of Silt Buildup in River Water Screen House, Rev. 14, performed 12/24/05
1301-6.7, Monitoring of Silt Buildup in River Water Screen House, Rev. 14, performed 8/26/07
1301-9.7, Intake Pump House Floor, Silt Accumulation and Inspections, Rev. 22, performed 4/26/07
1301-9.7, Intake Pump House Floor, Silt Accumulation and Inspections, Rev. 22, performed 5/13/05
ER-AA-340-1001, GL 89-13 Program Implementation Instructional Guide, Rev. 6
ER-AA-340-1002, Service Water Heat Exchanger and Component Inspection Guide, Rev. 3
ER-TM-340-1002, Guidance for Heat Exchanger Inspections and Cleaning at TMI, Rev. 0
ER-TM-TSC-0007, Severe Flood Guidelines, Rev. 0
OP-TM-533-272, Data Collection for Heat Balance Testing of DH-C-1B and DC-C-2B, Rev. 3
OP-TM-AOP-005, River Water Systems Failures, Rev. 5
OP-TM-PPC-A0089, River Water Inlet Temperature, Rev. 1
OP-TM-511-487, CW De-Ice Supply to Screen House Intake, Rev. 4
M-144, Heat Exchanger Inspections and Cleaning, Rev. 25, performed 1/9/06
6510-SUR-4515.03, TMINS Asiatic Clam Surveillance, Rev. 3
1202-32, Flood, Rev. 65

Drawings

302-202, River Water System Flow Diagram, Rev. 71

Calculations

C-1101-212-E410-084, TMI-1: DH-C-1A/B Design Analysis, Rev. 0
C-1101-531-5310-009, Evaluation of Nuclear Services Closed Cooling Heat Exchangers, Rev. 1
C-1101-533-E410-010, DH Service Heat Exchanger Tube Plugging Limits, Rev. 1
C-1101-543-E210-012, DC-C-2A/B Channel & Tube Required Thickness, Rev. 0
C-1101-543-E540-014, TMI-1: DHCCW Heat Exchanger 12R Test Evaluation, Rev. 0
C-1101-823-5450-001, TMI-1: LBLOCA EQ Temperature Profile Using the Gothic Computer Code, Rev. 9

Work Orders

R1837750, DH-C-1B/DC-C-1B Heat Load Test, performed 10/18/03
R2010727, Perform Cleaning & Inspection of Heat Exchanger, performed 11/5/05
R2010727, Activity 03, TMI, Unit 1, 2B Decay Heat Closed Cooler, DC-C-2B (eddy current), performed 11/14/05
R2027524, NDE Data Report 2006-007-002, NS-C-1B, performed 1/13/06
R2049095, NDE Data Report 2006-007-004, NS-C-1D, performed 2/9/06
R2049095, NS-C-1D: PM/ Clean & Inspect (Eddy Current), performed 2/16/06
R2049356, NS-C-1A: PM/ Clean & Inspect (Eddy Current), performed 1/3/06
R2055396, NDE Data Report 2006-007-001, NS-C-1A, performed 1/10/06
R2064824, NS-C-1C: PM/ Clean & Inspect (Eddy Current), performed 2/14/06
R2064826, NDE Data Report 2006-007-003, NS-C-1C, performed 2/6/06
R2075573, IST of DR Train B Pump and Valves, performed 1/13/06

R2085805, RWPH Silt Accumulation, performed 4/26/05
R2102391, IST of DR Train B Pump and Valves, performed 7/11/07
R2103195, ISPH Desilting by Divers, performed 4/27/07
R2107259, Silt Buildup- Screen House, performed 8/26/07

Other

Commitment Change Tracking Number 06-001
Commitment Change Tracking Number 06-002
Commitment Change Tracking Number 06-003
Commitment Change Tracking Number 07-025
ECR 03-00794, TMI-1: Evaluation of DH-C-1B and DC-C-2A Cooler Performance During T1R16, Rev. 0
ECR 05-00684, TMI-1: Evaluation of DH-C-1A and DC-C-2B Cooler Performance During T1R15, Rev. 0
GPU Letter 6710-96-2097, Generic Letter 89-13 Revised Response, dated 6/6/96
Program Health Report (ER-AA-340/TDR 117/TDR 119), Microbiologically Induced Corrosion (MIC) And Heat Sink, Second Quarter 2007
System Health Overview Report, Nuclear Services River Water System, June 2007
System Health Overview Report, Decay Heat River Water System, June 2007
System Health Overview Report, Nuclear Services Closed Cooling Water System, June 2007
System Health Overview Report, Decay Heat Closed Cooling Water System, June 2007
TMI Operations Plant Manual, Section M-06, Island Flood Control, Rev. 8
TMI-1 Updated Final Safety Analysis Report, Section 9.5, Decay Heat Removal System
TMI-1 Updated Final Safety Analysis Report, Section 9.6, Cooling Water Systems
TMI-1, GL 89-13 Program Health Report, 2nd Quarter, 2007
Topical Report 117, MIC Program Description, Rev. 1
Topical Report 119, Generic Letter 89-13 Program Description, Rev. 5

Section 1R11: Licensed Operator Requalification Program

Procedures:

EP-AA-1009, TMI-1 Emergency Action Level Matrix, Rev. 9
OP-TM-AOP-001, Fire, Rev. 0
OP-TM-AOP-031, Loss of Nuclear Services Component Cooling, Rev. 1
OP-TM-AOP-050, Reactor Coolant Leakage, Rev. 0
OP-TM-EOP-001, Reactor Trip, Rev. 7
OP-TM-EOP-005, OTSG Tube Leakage, Rev. 4
OP-TM-EOP-010, Emergency Procedure Rules, Guides and Graphs, Rev. 7

Section 1R12: Maintenance Effectiveness

Procedures:

OP-AA-108-115, Operability Determinations, Rev. 1

Other Documents:

IR-388972
IR-621252
IR-626831
IR-631269

IR-639476
IR-642365
IR-648297
IR-649053
IR-650800
IR-651050
CAP-T1999-0722
WO-R2063789
NRC Inspection Report 05000289/2006003
Power Labs failure analysis report TMI-49607, IE Inverter Synch Board Relay RL1
TMI-01 System Health Overview 2nd Quarter 2007 for System 602, Plant Computer

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures:

1105-10, Plant Computer Operations, Rev. 35
1107-3, Diesel Generator, Rev. 119
1203-7, Hand Calculations for Quadrant Power Tilt and Core Power Imbalance, Rev. 43.
IT-TM-1001, Plant Process Computer Database Update Process, Rev. 0
OP-TM-602,-411, Halting FIDMS, Rev. 2

Other Documents:

WO C2014528

Section 1R19: Post-Maintenance Testing

Drawings:

302-842 sheet 2, Control Building and Machine Shop Ventilation Flow Diagram, Rev. 7

Other Documents:

1303.4-16, 'A' EDG Monthly IST, Rev.
AR 00655339
IR 657177
IR 661913
IR 675938
WO R2077448
WO R2106750
IEEE Std 450-1995, Recommended Practice for Maintenance, Testing and Replacement of
Vented Lead-Acid Batteries for Nuclear Power Plant Applications
Station Risk Report # 522 ,EG-Y1A Outage
Station Risk Report for WW0732, Rev. 0

Section 1R22: Surveillance Testing

Procedures:

1303-5.1A, 'A' RB Emergency Cooling and Isolation System Logic Channel/Component Test,
Rev. 3

Other Documents:

Risk Document 536, HPI/Makeup & Purification System, Rev. 7

WO R2099749
WO R2104149
IR 593595
IR 659138

Section 2PS2: Radioactive Material Processing and Transportation

Procedures:

OU-AA-101, Rev. 11, Refuel Outage Management
RP-AA-22, Radioactive Material/Waste Transportation/Disposal Program Description
RP-AA-403, Rev. 1, Administration of the Radiation Work Permit Program
RP-AA-551-1002, Rev. 0, Evaluation and Estimation of Cobalt Introduction Into Systems by Valves
RP-AA-600, Rev. 0, Radioactive Material Waste Shipments
RP-AA-602, Rev. 11, Packaging of Radioactive Material Shipments
RP-AA-605, Rev. 1, 10 CFR 61 Program
RP-AA-4002, Rev. 2, Radiation Protection Refuel Outage Readiness
RP-TM-401-1002, Rev. 0, Three Mile Island Outage ALARA Planning and Controls
RP-TM-605-1001, Rev. 1, TMI Waste Characterization
RP-TM-850, Rev. 0 Radiation Protection Emergency Equipment Readiness
RW-AA-100, Rev. 4, Process Control Program for Radioactive Waste
TQ-AA-126, Rev. 3, Radioactive Material Shipper
TQ-AA-133, Rev. 12, Environmental Training
6610-OPS-4510.03, Rev. 2, Inspection and Maintenance of Respiratory Protection Equipment

Other Documents:

10 CFR Part 61 Sampling and Analysis Results, Radioactive Material Shipping Documentation, Radioactive System Operating procedures (Primary Resin and Pre-coat Processing, Concentrated Waste Storage Tank Operations), Radioactive Shipping Container Certifications

Section 4OA1: Performance Indicator (PI) Verification

Issue Reports

544634
544751
578700
584916
618773
632990
633130
633208
673584

Procedures:

1302-5.31C, 4160V 1D Bus Loss of Voltage/Degraded Grid Timing Relay Calibration and Logic Check, Rev. 15
ER-AA-1047, Mitigating Systems Performance Index Basis Document, Rev. 1

ER-AA-2020, Equipment Performance and Information Exchange and MSPI Failure
Determination Evaluation, Rev. 3
TMI-2006-004, MSPI Basis Document, Rev. 1

Other Documents:

Event Number 43498

LER 2006-002-00

LER 2006-003-00

LER 2892006002-Automatic Reactor Trip due to an Invalid Turbine Trip Actuation

LER 2892006003-Automatic Reactor Trip due to a Design Application Deficiency Within the
Reactor Coolant Pump Power Monitors Initiated by an Off Site Grid Disturbance.

NEI 99-02 Revision 5 , Regulatory Assessment Performance Indicator Guideline. July 2007

Complicated Scrams Task Group Report, Unplanned Scram with Complications. November 2006

Section 4OA3: Event Followup

1203-44, Hazardous Release, Rev. 40

IR-650041

IR-650096

IR-650313

IR-651244

Hazardous Substance/Waste and Petroleum Product Spill Reporting Form for "Circulating Water
Acid Tank" on 7/14/07

Exelon Reportability Manual

NUREG-1022, Event Reporting Guidelines for 10 CFR 50.72 and 50.73, Rev 2.

LIST OF ACRONYMS

ACM	Adverse Condition Monitoring
ADAMS	Agencywide Documents and Management System
ALARA	As Low As is Reasonably Achievable
AmerGen	AmerGen Energy Company, LLC
BTP	Branch Technical Positions
CFR	Code of Federal Regulations
CRA	Control Rod Assembly
DOT	Department of Transportation
DRP	Division of Reactor Projects
ECR	Engineering Change Request
EDG	Emergency Diesel Generator
EFW	Emergency Feedwater
EPRI	Electric Power Research Institute
ESAS	Engineered Safeguards and Actuation System
HRA	High Radiation Area
INPO	Institute of Nuclear Power Operations
IR	Issue Report
IST	Inservice Testing
LOCA	Loss of Coolant Accident
MIC	Microbiologically Induced Corrosion
MR	Maintenance Rule
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OWA	Operator Work-around
PADEP	Pennsylvania Department of Environmental Protection
PARS	Publicly Available Records
PCP	Process Control Program
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PM	Preventative Maintenance
PMT	Post-Maintenance Test
PPC	Plant Process Computer
SCBA	Self Contained Breathing Apparatus
SSC	Structures, Systems, and Components
TM	Temporary Modification
TMI	Three Mile Island, Unit 1
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
VHRA	Very High Radiation Area
WO	Work Order